Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Proposed Amendments to the Service Rules Governing Public Safety Narrowband Operations in the 769-775/799-805 MHz Bands	)	PS Docket No. 13-87
	)	
The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010	)	WT Docket No. 96-86
	)	
National Public Safety Telecommunications Council Petition for Rulemaking on Aircraft Voice Operations at 700 MHz	)	RM-11433
	)	
National Public Safety Telecommunications Council Petition for Rulemaking to Revise 700 MHz Narrowband Channel Plan	)	RM-11433
	)	
Region 24 700 MHz Regional Planning Committee Petition for Rulemaking	)	WT Docket No. 96-86 PS Docket No. 06-229
	)	
State of Louisiana Petition for Rulemaking	)	RM-11577
	)	

COMMENTS BY THE ARKANSAS INTEROPERABLE COMMUNICATIONS COMMITTEE COCERNING THE SEVENTH REPORT AND ORDER NOTICE OF PROPOSED RULEMAKING

I. BACKGROUND

Arkansas operates a state-of-the-art public safety communications network called the Arkansas Wireless Information Network (AWIN). AWIN is a multiple site, trunked communication system based on a digital 700/800 MHz system using the Association of Public Safety Communication Officials (APCO) Project 25 (P-25) standard. AWIN, as a multi-phased program, leveraged existing infrastructure and approximately $70 million in taxpayer dollars to create a reliable and redundant communication system for first responders in Arkansas.

Governance for AWIN and interoperable communications in Arkansas is provided by the Arkansas Interoperable Communications Committee (the Committee). The AICC is a statewide group that provides advice and guidance on questions relating to public safety communications in Arkansas. The membership of the AICC is multi-jurisdictional and multi-disciplinary. The AICC Executive Committee is responsible for policy development and financial oversight.

The planning process for the AWIN system involved the assessment of first responder needs and existing technology. The solution that was identified to address the lack of interoperability for first responders included four key objectives:

- To develop and implement an approach to providing a single system for first responders that would allow for coordinated emergency response;
- To upgrade the existing infrastructure to support the needs of the state's first responders;
- To incorporate a stand-alone communications project for the Chemical Stockpile Emergency Preparedness Program (CSEPP);
- To develop three pilot counties to act as 'proof-of-concept,' placing all first responders in a county on a single system.

These objectives were met when AWIN became fully operational in March of 2006.

Since that time, AWIN has grown into a truly multi-jurisdictional, multi-disciplinary system. Over 24,000 subscribers representing 900 public safety agencies use the AWIN network for emergency communications. Local public safety agencies represent the largest user groups, representing 831 agencies currently on the system. The AWIN system is now utilized to some degree by every discipline.

The State of Arkansas has made a significant investment in this mission critical voice network using a mix of 700 MHz and 800 MHz. AWIN is the key element in our statewide emergency communications plan. Arkansas' first responder community has come to rely on AWIN for communications when no other forms of communications are available.

II. COMMENTS – NPRM TECHNICAL RULES

The Committee supports the proposed actions of the Commission as described in this section. We support the rule change to Section 90.543 that will relax the **ACP requirement.** We agree that allowing licensees the option to satisfy emissions limits into the paired receive band at the output of an external filter provides public safety licensees with the most flexibility to achieve the necessary -100 dBμ level of interference protection.

The Committee supports the rules regarding **Secondary Fixed Operations** and the use of fixed tone signaling and alarm operations on 700 MHz channels also, as long as it is secondary use and does not cause interference to primary mobile services.

We support extending the exception provided in Section 90.64 (c) regarding **Digital Base Station ID** to the 700 MHz band and permitting licensees to transmit station identifications digitally.

The Committee agrees with the Commission regarding **Offset Frequency Values** by retaining the current ACP frequency values and measurement procedures.

III. COMMENTS REGARDING NCC RECOMMENDATIONS

As to the set of recommendations provided by the National Coordination Committee (NCC), our Committee supports the actions of the Commission, but offers the following comments:

In the matter of the NCC recommendation that the Commission update its rules to reference the Annex C-Advanced **Encryption Standard** (AES), the Committee supports this change; however, we would encourage the Commission provide an opportunity to comment on any significant future changes to Section 90.553.

The Committee believes that it is vitally important that each state establish a **State Interoperability Executive Committee**; however, we support the Commission's decision to allow the individual states to

determine the best way to handle the administration of the 700 MHz interoperability channels.

Regarding the **Mandatory Use of Pre-Coordination Database,** the Committee supports the use of CAPRAD and would hope that the Commission would reevaluate this decision at some future date, as we believe that there is significant benefit from having all plans developed and stored in a common tool.

IV. COMMENTS REGARDING THE DECEMBER 31, 2016 DEADLINE FOR NARROWBANDING TRANSITION TO 6.25 KILOHERTZ BANDWIDTH TECHNOLOGY

Technology is rapidly changing. Nowhere will this be more apparent in the coming 5 to 10 years than in the public safety communications arena. With the allocation of the D Block to public safety, a whole new tool set will become available to the community that has, until now, only been dreamed of. The communications industry will drive many of these changes by providing equipment and services in an attempt to differentiate themselves from their competitors.

The Committee believes that convergence of traditional land mobile radio (LMR) systems and the coming long term evolution (LTE) public safety broadband network has, in fact, begun. Many believe that this convergence will not occur for another 7 to 10 years. We would assert that 7 to 10 years is a long time in the technology world and believe that competition between manufacturers will cause the convergence to happen sooner than previously predicted. The Committee believes that philosophically LMR and LTE cannot be treated separately. These systems must be considered equally for both short-term and long-term planning and rule-making purposes. It is with that in mind that the Committee provides the following comments:

If the Commission determines that a deadline is required, the Committee supports an approach to selecting a deadline for narrowbanding that is directly related to the finalization of Phase 2 standards, the availability of equipment that is capable of operating at 6.25 kHz and the end-of-support for existing equipment. Further, we would urge the Commission to carefully weigh the impact of the implementation of the public safety broadband network against narrowbanding existing systems.

The Committee believes that any equipment being manufactured is compliant with the standards *as they are today*. Most future modifications should be addressed with firmware upgrades. Several public safety entities in the state have deployed equipment that is marketed as being narrowband-capable; however, these agencies have not narrowbanded the equipment and thus cannot speak to whether the equipment can successfully make the transition.

The Committee asserts that equipment is not yet widely available that performs reliably at 6.25 narrowbanding. When Arkansas moved from 25 KHz to 12.5 MHz, there was a recognizable decrease in coverage. The move to 6.25 would result in a loss of coverage on the send side of a transmission. This loss may be recovered by installing additional equipment, thus driving up the cost to make the transition.

Most of the subscriber units deployed in Arkansas were placed in service between 2006 and 2008. Narrowband-capable subscriber units had limited availability in Arkansas until late 2010. Since that time, state, county and local public safety agencies in Arkansas have purchased equipment that will only operate in the 12.5 kHz range due to limited funding; only a few agencies have been able to afford narrowband-compliant units. Many of these public safety agencies rely on grant funding for these types of purchases. This funding stream has been significantly reduced in the last few years.

As noted above, most of the radios placed in service in Arkansas are less than 6 years old. Requiring public safety entities to retire assets before the normal useful life will place an unnecessary financial and accounting burden on the entity. In many areas, achieving the 6.25 narrowbanding requirement will result

in the replacement of infrastructure and subscriber units. For states like Arkansas, Louisiana and others, this is equivalent to a wholesale system replacement. The cost is staggering.
Another consideration is that if assets are retired before their 'end-of-life,' the agencies will have to develop a policy that allows for retiring equipment before it would normally be retired. For large agencies this could result in an overly burdensome effort of coordinating the return and disposal of the assets.

Finally, the total lifecycle costs for a narrowbanded system are difficult to predict. It is reasonable to anticipate that radios and infrastructure would require regular maintenance and tuning to ensure they are staying on frequency; however, because of the smaller channel widths, more frequent maintenance could be required. In the early years of deployment, this cost may be offset by the equipment being new. As the years advance, however, the additional attention for maintenance could add to the overall lifecycle costs.

In light of these concerns, the Committee urges the Commission to reconsider the 700 MHz narrowbanding requirement. We support the 2014 deadline for manufacturers to provide this equipment. Holding to this deadline would ensure that the equipment is available and would allow users to transition to the equipment as it is needed. The transition then becomes market-driven and not an unfunded mandate. Each public safety entity should make this transition if and when their requirements warrant the use of narrowbanded equipment. Narrowbanding would be accomplished by user needs and normal equipment attrition.